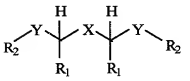
I CLAIM:

1. A polymer which comprises polyvinyl chloride, polyvinylidene chloride, polycarbonate, polyurethane, polyethylene, polypropylene, polyamide, polyimide, polyester, or polyvinyl acetate containing about 0.005 to about 10 phr of a stabilizer having the formula: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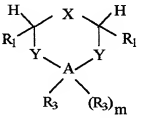
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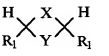
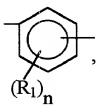


where A is C, P, Sn, Si, or B, X is $-R_1C=CR_1-$, $-C\equiv C-$,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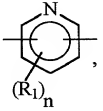
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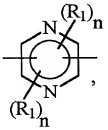
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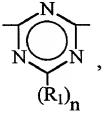
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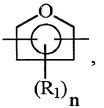
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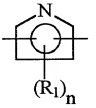
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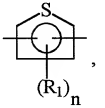
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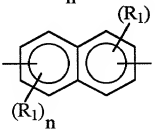
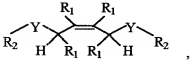


each Y is independently selected from O and S; each R is independently selected from hydrogen, alkyl from C_1 to C_{20}, aryl from C_6 to C_{20}, alkaryl from C_7 to C_{20}, and aralkyl from C_7 to C_{20}; each R_1 is independently selected from R, OR, RCO, ROCO, $ROCO_2$, $P(R)_2$, $P(OR)_2$, $PR(OR)$, $N(R)_2$, $(R)_2NCO$, $(R)_2NCO_2$, SR, and halogen; each

R_2 is independently selected from R, RCO, ROCO, $P(OR)_2$, $Sn(R)_p(OR)_{3-p}$, $Sn(R)_p(OCOR)_{3-p}$, $Si(R)_p(OR)_{3-p}$, and $B(R)_p(OR)_{2-p}$, and two R_1 groups, two R_2 groups, or an R_1 group and an R_2 group can be bridged together to form a ring, except that when two Y's are O and X is $-R_1C=CR_1-$ at least one R_2 is not hydrogen; each R_3 is independently selected from R, RCO, ROCO, $ROCO_2$, OR, SR, $N(R)_2$, $OP(R)_2$, and $OP(OR)_2$; m is 0 when A is P or B and is 1 when A is Sn, Si, or C; n is 0 to 4, depending on the number of available sites; and p is 0 to 3 for the tin stabilizers and 0 to 2 for the boron stabilizers. .

2. A polymer according to Claim 1 wherein said polymer is polyvinyl chloride.

3. A polymer according to Claim 1 wherein said stabilizer has the formula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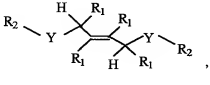
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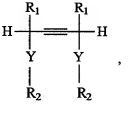
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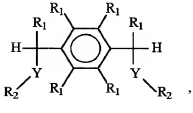
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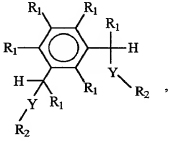
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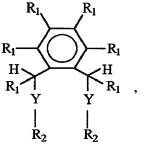
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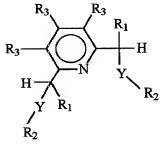
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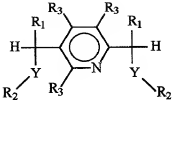
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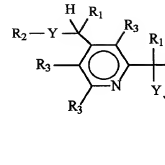
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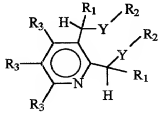
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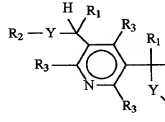
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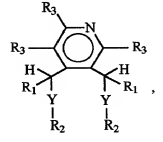
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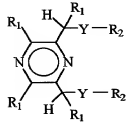
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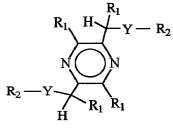
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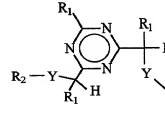
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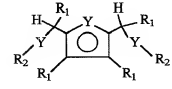
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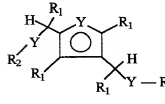
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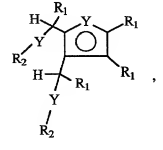
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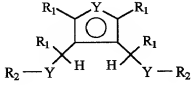
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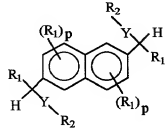
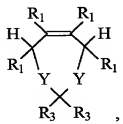


4. A polymer according to Claim 1 wherein said stabilizer has the formula: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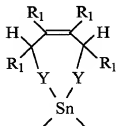
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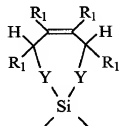
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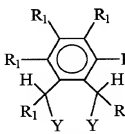
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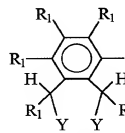
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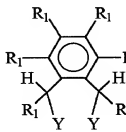
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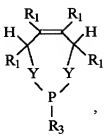
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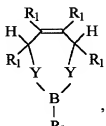
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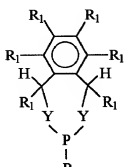
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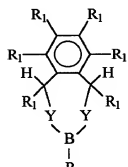
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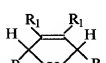
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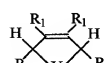
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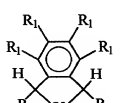
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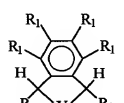


5. A polymer according to Claim 1 that is has been made into an article that has been sterilized with gamma radiation.

6. A polymer according to Claim 1 wherein said stabilizer is cis-4-benzyloxy-2-buten-1-ol.

7. A polymer according to Claim 1 wherein said stabilizer is cis-1,4-dibenzyloxy-2-butene.

8. A polymer according to Claim 1 wherein said stabilizer is a 4,7-dihydro-1,3-dioxepin.

9. A polymer according to Claim 1 wherein said stabilizer is a phthalan.

10. A polymer according to Claim 1 wherein Y is O.

11. A polymer according to Claim 1 wherein X is $-R_1C=CR_1$.

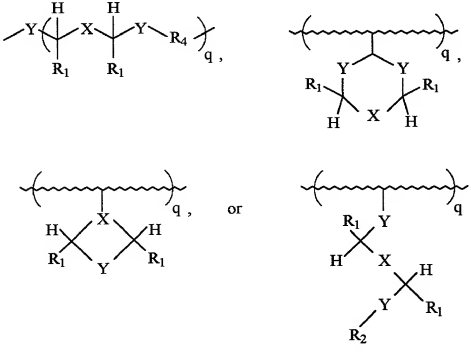
12. A polymer according to Claim 1 wherein A is C.

13. A polymer according to Claim 12 wherein X is -HC=CH-; R is benzyl; R_1 is H; R_2 is R; R_3 is R; said two R_1 groups that can be bridged together to form a ring

are selected from the group consisting of alkylene from C_1 to C_8, (aryl)alkylene from C_7 to C_8, and -CO-(aryl)alkylene-CO- from C_7 to C_8; or p is 0.

14. A polymer according to Claim 1 where each R is independently selected from hydrogen, alkyl from C_1 to C_{12}, aryl from C_6 to C_{12}, alkaryl from C_7 to C_{12}, and aralkyl from C_7 to C_{12}.

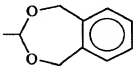
15. A polymer according to Claim 1 wherein said stabilizer has the structure:



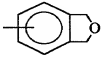
where R_4 is alkylene from C_1 to C_{20}, arylene from C_6 to C_{20}, (aryl)alkylene from C_7 to C_{20}, (alkyl)arylene from C_7 to C_{20}, alkanediyl from C_1 to C_{20}, (aryl)alkanediyl from C_7 to C_{20}, -CO-(alkylene)-CO- from C_1 to C_{20}, -CO-

arylene-CO- from C_6 to C_{20}, -CO-(aryl)alkylene-CO- from C_7 to C_{20}, -CO-(alkyl)arylene-CO)- from C_7 to C_{20}, $Si(R)_2$, SiR(OR), $Si(OR)_2$, P(OR), B(OR), $Sn(R)_2$, SnR(OR), or SnR(O-CO-R); and q is 1 to 1000.

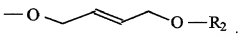
16. A polymer according to Claim 15 wherein said stabilizer has the pendant groups

 , or 

17. A polymer according to Claim 15 wherein said stabilizer has the pendant group

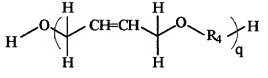
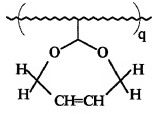


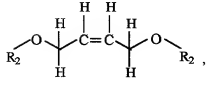
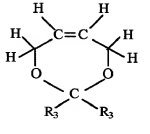
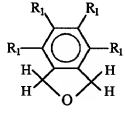
18. A polymer according to Claim 15 wherein said stabilizer has the pendant group



19. A polymer according to Claim 15 that has been made into an article and sterilized with gamma radiation.

20. Polyvinyl chloride, polyurethane, polyethylene, polypropylene, or polycarbonate containing about 0.2 to about 6 phr of a stabilizer having the formula:

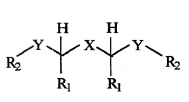
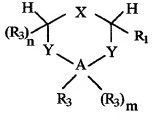
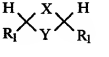




where R_1 is hydrogen; one R_2 is R and the other R_2 is R or hydrogen; R_3 is R; R_4 is alkylene from C_1 to C_8, (aryl)alkylene from C_7 to C_8, or -CO-(aryl)alkylene-CO- from C_7 to C_8; R is benzyl; and q is 1 to 5.

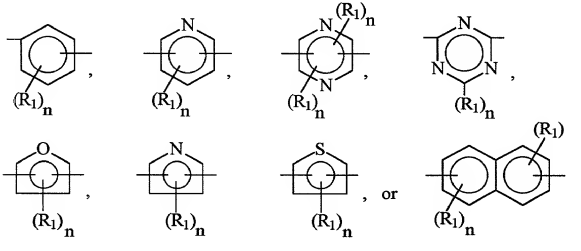
21. Polyvinyl chloride according to Claim 20 that has been made into an article and said article has been sterilized with gamma radiation.

22. A method of making a sterilized polymeric article comprising

(A) preparing a polymer which comprises polyvinyl chloride, polyvinylidene chloride, polycarbonate, polyethylene, polypropylene, polyamide, polyimide, polyether, polyester, or polyvinyl acetate that contains about 0.005 to about 10 phr of a stabilizer having the formula:


, 
, or 

where A is C, P, Sn, Si, or B, X is $-R_1C=CR_1-$, -C≡C-,



each Y is independently selected from O and S; each R is independently selected from hydrogen, alkyl from C_1 to C_{20}, aryl from C_6 to C_{20}, alkaryl from C_7 to C_{20}, and aralkyl from C_7 to C_{20}; each R_1 is independently selected from R, OR, RCO, ROCO, $ROCO_2$, $P(R)_2$,

$P(OR)_2$, $PR(OR)$, $N(R)_2$, $(R)_2NCO$, $(R)_2NCO_2$, SR, and halogen; each R_2 is independently selected from R, RCO, ROCO, $P(OR)_2$, $Sn(R)_p(OR)_{3-p}$, $Sn(R)_p(OCOR)_{3-p}$, $Si(R)_p(OR)_{3-p}$, and $B(R)_p(OR)_{2-p}$, and two R_1 groups, two R_2 groups, or an R_1 group and an R_2 group can be bridged together to form a ring, except that when two Y's are O and X is $-R_1C=CR_1-$ at least one R_2 is not hydrogen; each R_3 is independently selected from R, RCO, ROCO, $ROCO_2$, OR, SR, $N(R)_2$, $OP(R)_2$, and $OP(OR)_2$; m is 0 when A is P or B and is 1 when A is Sn, Si, or C; n is 0 to 4, depending on the number of available sites; and p is 0 to 3 for the tin stabilizers and 0 to 2 for the boron stabilizers;

(B) making an article from said polymer; and

(C) exposing said article to gamma radiation.

23. A polymer according to Claim 22 wherein said stabilizer is a polyether.

24. A polymer according to Claim 22 wherein said stabilizer is a polyester.